We claim:

1. In a data network comprised of a plurality of data switches interconnected to form a plurality of data paths forming a mesh configuration of data switches, a method of re-routing data messages between first and second data switches over a pre-established alternate data path linking said first and second data switches comprised of the steps of:

   a. sending at least a first data message over a first data path from said first switch to said second switch;

   b. receiving at said first data switch, switch status messages from said second switch;

   c. upon the loss of said switch status messages at said first switch, re-directing subsequent data messages over an alternate data path through said data network.

2. The data network of claim 1 wherein said alternate data path is a protection path through said network.

3. The method of claim 1 wherein said data switches are asynchronous transfer mode switches.

4. The method of claim 1 wherein said data switches are internet protocol (IP) routers.

5. The method of claim 1 wherein said switch status messages are comprised of a predetermined format, switch liveness message.

6. The method of claim 1 wherein at least one of said switches maintains a table of incoming link and path identifiers and of outgoing link and path identifiers.

7. The method of claim 1 wherein said first data message represents speech information.

8. The method of claim 1 wherein said first data messages represents computer data.

9. The method of claim 1 wherein said step of re-directing said series of data messages from said first path over another path through said data network includes the steps of:

sending subsequent first data messages to a third data switch.

10. The method of claim 1 wherein said first data switch is a protection switch element.

11. In a data network comprised of a plurality of data switches interconnected to form a plurality of data paths forming a mesh configuration of data switches, a method of re-routing data messages around a data switch comprised of the steps of:

a. sending at least a first data message over a first data path from a first switch to a second switch;

b. sending said at least a first data message from said second switch to a third switch;

c. receiving at said second data switch, switch status messages indicating the functionality of said third data switch;

d. upon the loss of said switch status messages at said second switch, sending a switch failure message from said second switch to said first switch;

e. upon the receipt of said switch failure message at said first switch, said first switch re-directing subsequent data messages away from said second and third switch via a second data path through said data network.

12. The data network of claim 11 wherein said second data path is a protection path through said network.

13. The method of claim 11 wherein said data switches are asynchronous transfer mode switches.

14. The method of claim 11 wherein said data switches are internet protocol (IP) routers.

15. The method of claim 11 wherein said data switches are digital cross connect switches controlled by MPLS.

16. The method of claim 11 wherein said data switches are optical cross connects and switches controlled by MPLS.

17. The method of claim 11 wherein said switch status messages are comprised of a predetermined format, switch liveness message.

18. The method of claim 11 wherein at least one of said switches maintains a table of incoming link and path identifiers and of outgoing link and path identifiers.

19. The method of claim 11 wherein said series of data messages represent speech information.

20. The method of claim 11 wherein said series of data messages represent computer data.

21. The method of claim 11 wherein said step of re-directing said series of data messages from said first path over another path through said data network includes the steps of:

sending subsequent data messages to a third data switch.

22. In a data network comprised of a plurality of data switches interconnected to form a plurality of data paths forming a mesh configuration of data switches, a method of re-routing data messages between first and second data switches over a pre-established alternate data path linking said first and second data switches comprised of the steps of:

a. sending at least a first data message over a first data path from said first switch to said second switch;

b. upon the loss of said first data message at said second switch, sending a switch status messages to said first switch, the receipt of said switch status message thereby causing the re-directing of subsequent data messages over an alternate data path through said data network.

23. In a data network comprised of a plurality of data switches interconnected to form a plurality of data paths forming a mesh configuration of data switches, a method of re-routing data messages around a data switch comprised of the steps of:

a. sending at least a first data message over a first data path from a first switch to a second switch;

b. sending said at least a first data message from said second switch to a third switch;

upon the loss of said first data message at either said second switch or said third switch, sending a switch status message to at least one of said first and second switches thereby causing the re-directing of subsequent data messages away from said second and third switch via another data path through said data network.

24. The method of claim 23 wherein said first switch is a protection switch element.